UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,129	08/07/2006	Mathias Rausch	SC12838EM	7803

34814 7590 04/27/2011

LARSON NEWMAN, LLP
5914 WEST COURTYARD DRIVE
SUITE 200
AUSTIN, TX 78730

EXAMINER	
BAIG, ADNAN	

ART UNIT	PAPER NUMBER
2461	

NOTIFICATION DATE	DELIVERY MODE
04/27/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ecox@LNAlaw.com
mtaylor@LNAlaw.com

Office Action Summary	Application No.	Applicant(s)
	10/565,129	RAUSCH ET AL.
	Examiner	Art Unit
	ADNAN BAIG	2461

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7 and 9-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7 and 9-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/14/2011 have been fully considered but they are not persuasive.

In regards to applicants arguments, the applicant has raised the argument that the references of record do not disclose "*in response to the difference between the first network timing information and the second network timing information exceeding the threshold, communicate the first fixed code value to a second computer node to request a change in network timing information associated with the second computer node by a predetermined fixed step value sufficiently small to avoid loss of local synchronization with the plurality of other computer nodes in the first network*" The examiner respectfully disagrees as the teachings of Le Scolan (Of record) in view of Przelomiec (Of Record), further in view of Sparrell (Of Record), and further in view of Kotaki (Of Record) when combined arrived to the claimed limitation.

Przelomiec (Of record) discloses a monitoring module for monitoring timing codes transmitted by two networks for determining synchronization based on the arrival times of the codes exceeding a threshold (**Col. 2 lines 51-64**). Prezlimiec furthermore teaches if the timing codes are outside the prescribed tolerance (e.g., threshold) then corrective action may proceed (**see Col. 6 lines 59-67**). Thus a first fixed code value is generated or "determined" based on the sign of the difference with corrective action (**e.g., Col. 6**

lines 65-67, For example, the timing (e.g., timing code) of the DBC MSC can be adjusted so that it duplicates the timing (e.g., timing code) of the standard cellular MSC). The examiner further believes that performing a "*corrective action*" for achieving synchronization as disclosed in the reference gives strong motivation for the first fixed code value to indicate a predetermined fixed step value or any means for synchronizing the two networks. Sparrell (Of Record), discloses communicating a master synchronization code to allow all slave devices to synchronize with the master clock of the master device, (**see Col. 8 lines 25-38 & Col. 9 lines 31-34**). It would be readily apparent to one of ordinary skill for transmitting the determined first fixed code value to the second computer node when the network timing information between the first and second networks exceeds the threshold, as the master synchronization code of Sparell (Of record) to synchronize the two networks. The applicant points to (Kotaki of Record) for not disclosing the first fixed code value requesting a change in network timing information by a *predetermined fixed step value*. The examiner does not rely on Kotaki (Of Record) for the teachings of determining and communicating the first fixed code value as this is taught by the combination of Le Scolan (Of record) in view of Przelomiec (Of Record), and further in view of Sparrell (Of Record). However the disclosure of Kotaki (Of Record), relates to correcting a network timing difference between a master and slave stations. The applicant argues the time correction number N and the correction coefficient does not correspond to the "*predetermined fixed step value*". However in **Col. 4 lines 10-48** Kotaki discloses the correction coefficient (e.g., D=0.1) where time synchronization can be obtained between the master station and slave

station after 10 system times where a smooth time correction can be accomplished in a **step like time variation** +-0.1ΔT. In Col. **3 lines 20-47** the algorithm used for determining the correction coefficient is based on a network timing difference. Thus with broadest reasonable interpretation, the correction coefficient implemented for synchronization is a "*predetermined fixed step value*" in regards to the time difference */e/*.

While the "predetermined fixed step value" is used in the claim to *avoid loss of local synchronization with the plurality of other computer nodes in the first network,* the examiner interprets the reasoning as intended use. However Kotaki furthermore teaches *since the time correction coefficient and time correction number as found based on the time difference of the respective slave station are sent to the slave station, it is possible to perform time correction at the respective slave station upon receipt of the time correction data. Further, the respective slave station can secure time synchronization (i.e., avoid local loss), while very small step like time correction is being done, enabling a proper processing or a smoother operation to be obtained in various control operations*, (**see Col. 4 line 63 – Col. 5 lines 1-5**).

It would be readily apparent to one of ordinary skill in the art for the master synchronization code taught in the combination of Le Scolan (Of record) in view of Przelomiec (Of Record), further in view of Sparrell (Of Record), to include the

predetermined fixed step value of Kotaki (Of Record) as both teachings are requesting a change in network timing information. Therefore the teachings of Le Scolan (Of record) in view of Przelomiec (Of Record), further in view of Sparrell (Of Record), and further in view of Kotaki (Of Record) in combination, arrive to the claimed features of claim 1. Claims 3-6, 11, 12, and 17-20 are further rejected as they depend from claim 1. The same rationale in respect to claim 1 for a “fixed code value” is applied to independent claims 7 and 10. Claims 9, 13-16, 21, 22, and 17-20 are further rejected as they depend from claims 7 and 10.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 3-6, 11-12, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Scolan et al. (USP 7,058,729) in view of Przelomiec et al. USP (5,805,645), further in view of Sparrell et al. USP (6,970,448), and further in view of Kotaki (USP 5,276,659).

Regarding Claim 1, Le Scolan discloses a first computer node (**see Fig. 2, Synchronization node “Cma”**) for operating in a system comprising a first network

and a second network (**See Fig. 2 & Col. 5 lines 32-33 i.e., "first, second network"**), each having a local time base (**see Col. 3 lines 4-10**) and comprising a plurality of computer nodes (**see Col. 11 lines 5-8**), the first computer node comprising:

a synchronization unit (**See Fig. 2, nodes A,B**) operable to: compare first network timing information indicative of a first local time base associated with the first network (**see Col. 12 lines 17-31 i.e., reference time**) with second network timing information indicative of a second local time base associated with the second network (**see Col. 15 lines 10-31**)

and to determine a sign of the difference (**see Col. 15 line 32 *i.e., offset supplied as a number of clock pulses***) between the first network timing information and the second network timing information (**see Col. 15 lines 32-48 i.e., "*CMb" makes a correction in its cycle time register CTR in order to remain synchronized with the synchronization node "CMa"* based on the offset**)

Referring to Fig. 2, Le Scolan discloses the offset (*i.e., sign of the difference*) refers to the difference of reference time events between to buses "bA" and "bB" which are compared and communicated to cycle masters "Cma" and "Cmb" through respective interconnect nodes A,B, (**see Col. 15 lines 22-32 & Col. 10 lines 26-42**).

Le Scolan teaches a first network and second network are able to synchronize to one another by reading and calculating each of their respective clock pulses (*i.e., network timing information*) at the appearance of a reference event, (**see Col. 4 line 60 - Col. 5 lines 1-18**).

While Le Scolan discloses determining and communicating a sign of the difference between the first network timing information and the second timing information, Le Scolan does not expressly disclose in response to the difference exceeding a threshold, determining a first fixed code value based on a sign of the difference between the network timing information of the first and second networks. However the limitation would be rendered obvious in view of the teachings of Przelomiec et al. USP (5,805, 645)

Przelomiec discloses synchronizing a down-banded cellular network (**first network**) with a standard cellular network (**second network**), by monitoring timing codes transmitted. Separation between the codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks, (**see Col. 2 lines 51-64 & Col. 6 lines 26-50**)

Referring to **Col. 6 lines 59-67**, if the timing separation between DBC and cellular control channel timing codes is outside the prescribed tolerance, then corrective action may proceed on either the MSC level or base station level. The clocks in MSC's are directly adjusted to ensure synchronization in the control channel information transmitted to the base stations.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention based on the sign of the difference determined by the synchronization unit of Le Scolan to be based on a first fixed code value by implementing the teachings of Przelomiec who discloses determining synchronization between two networks by monitoring the separation between timing codes from both networks by more than a prescribed threshold and adjusting the clock of a network in accordance to the timing code difference and threshold, because the teaching lies in Przelomiec, that separation between the time codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks.

While the combination of Le Scolan in view of Przelomiec disclose communicating the sign of the difference to a plurality of computer nodes to request a change in network timing information which includes a second computer node (**Le Scolan, see Col. 15 lines 36-48**), the references do not disclose communicating the first fixed code value to

a second computer. However the limitation would be rendered obvious in view of the teachings of Sparrell et al. USP (6,970,448).

Sparrell discloses communicating a master synchronization code to allow all slave devices to synchronize with the master clock of the master device, (**see Col. 8 lines 25-38 & Col. 9 lines 31-34**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention communicating the first fixed code value to a second computer in the first network of Le Scolan in view of Przelomiec, by implementing the teachings of Sparrell who discloses communicating a master synchronization code to allow all slave devices to synchronize with the master clock of the master device, in order to synchronize communication networks.

The combination of Le Scolan in view of Przelomiec, and further in view of Sparrell do not disclose the request to change the network timing information associated with the second computer node in the first network by a predetermined fixed step value sufficiently small to avoid loss of local synchronization with the plurality of other computer nodes in the first network. However the limitation would be rendered obvious in view of the teachings of Kotaki (USP 5,276,659).

(Referring to Fig. 1, Kotaki illustrates a network station including a master station 11o and multiple slave stations "11i....11n", **(see Col. 2 lines 3-30**).

Kotaki discloses a network timing difference between a master station and a respective slave station (**see Col. 3 lines 8-12 i.e., timing difference |e|**) is corrected (*i.e., reduced or increased*) responsive to the sign of the difference received, (**see Col. 3 line 55 - Col. 4 lines 1-10**)

and in sufficiently small predetermined step values (**see Col. 3 lines 20-45 *i.e., predetermined time correction number N is assigned based on timing difference |e|, and a correction coefficient D, predetermined fixed value)*** in accordance with the sign (**see *Col. 4 lines 25-51 i.e., time synchronization can be obtained between the master station and the slave station after 10 system times (small steps)***).

Kotaki teaches *since the time correction coefficient and time correction number as found based on the time difference of the respective slave station are sent to the slave station, it is possible to perform time correction at the respective slave station upon receipt of the time correction data. Further, the respective slave station can secure time synchronization (i.e., avoid local loss), while very small step like time correction is being*

done, enabling a proper processing or a smoother operation to be obtained in various control operations, (**see Col. 4 line 63 – Col. 5 lines 1-5**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for a network timing difference between the first network and the second network to be thereby reduced at the second computer node responsive to the sign of the difference received by a predetermined fixed step value sufficiently small in accordance with the sign to avoid loss of local synchronization with the plurality of other computer nodes in the first network, by including the teachings of Kotaki who discloses a network timing difference between a master station and a respective slave station from a plurality of slave stations, is corrected responsive to the sign of the difference received and in sufficiently small predetermined fixed step values in accordance with the sign, within the teachings of Le Scolan in view of Przelomiec, and further in view of Sparrell, because the teaching lies in Kotaki, that a slave station can secure time synchronization while very small step like time correction is being done, enabling a proper processing or a smoother operation to be obtained in various control operations.

Regarding Claim 3, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose, a computer node according to claim 1, wherein the network timing information corresponds to the phase of the network clock,

(**Referring to Fig. 1 Le Scolan illustrates the phase offset in the computer node, see Col. 20 lines 24-40**)

Regarding Claim 4, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose a first computer node according to claim 1, request to change the network timing information comprises a request to reduce the difference between the first network timing information and the second network timing information, (**The difference is calculated and synchronization is performed to the applied network, e.g., clock time reduced or increased see Le Scolan, Col. 6 lines 38-60**).

Regarding Claim 5, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose, a first computer node according to claim 1, wherein the computer node is arranged to be coupled to the first network, (**The first and second network described in Col. 5 lines 59-61, are illustrated by Le Scolan in Fig. 2, where node "B" is coupled to the first network**).

Regarding Claim 6, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose, a first computer node according to claim 1, wherein the computer node is arranged to be coupled to the second network

via a second computer node, (**The first and second network described in Col. 5 lines 59-61, are illustrated by Le Scolan in Fig. 2, where node "A" is coupled to the second network**).

Regarding Claim 11, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose a first computer node according to claim 1, wherein the difference between the first network timing information and the second network timing information indicates that a first communication cycle associated with the first network is ahead of a second communication cycle associated with the second network. ((**Le Scolan, see Col. 12 lines 37-67 & Col. 15 lines 10-48 i.e., *node CMb makes a correction to the value contained in its cycle time register in order to remain synchronized (i.e., increase or decrease timing) with the synchronization node "CMA".***

(**Kotaki**, **see Col. 2 lines 10-30 i.e., *respective slave station repeats a time correction operation by reducing the time difference if the master station finds a gain time (ahead) from the time information or increasing the time difference if the master station finds a delay from the time information)***

Regarding Claim 12, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose a first computer node according to claim 1, wherein the synchronization unit is arranged to measure a time between a start

of a first communication cycle of the first network and a start of a second communication cycle of the second network, (**Le Scolan, see Col. 12 lines 17-67 i.e., *interconnection nodes A, B read and update (measure) cycle start signals***)

Regarding Claim 17, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose the first computer node of claim 1, wherein the synchronization unit is operable to communicate a second fixed code value to the second computer node in response to determining the difference between the first network timing information and the second network timing information not exceeding the threshold, (**Przelomiec, discloses an unsatisfactory state of synchronization between both networks occurs outside of the threshold range however if it is within the threshold range handoff can occur within a satisfactory range of synchronization, see Col. 2 lines 51-64. It would be obvious to one of ordinary skill based on the teachings of Sparrell using various encoding schemes (see Col. 8 lines 39-52), for using a second fixed code value based on the timing difference under the range of the threshold)**

Regarding Claim 18, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose the first computer node of claim 17, wherein the first fixed code value and the second fixed code value are each two bit

binary values, **(Sparrell, see Col. 8 lines 39-52 e.g., various encoding schemes known in the art may be used which includes 2B),**

Regarding Claim 19, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose the first computer node of claim 1, wherein the first fixed code value is a two bit binary value. **(Sparrell, see Col. 8 lines 39-52 e.g., various encoding schemes known in the art may be used which includes 2B),**

Regarding Claim 20, the combination of Le Scolan in view of Przelomiec, further in view of Sparrell, and further in view of Kotaki disclose the first computer node of claim 1, wherein the first fixed code value is a first value when the sign of the difference is positive and a second value when the sign of the difference is negative, and wherein second value is a complement of the first value. (**Przelomiec, discloses an unsatisfactory state of synchronization between both networks occurs outside of the threshold range however if it is within the threshold range handoff can occur within a satisfactory range of synchronization, see Col. 2 lines 51-64. It would be obvious to one of ordinary skill based on the threshold for the fixed code value determined, to have a first value when the sign of the difference is positive and a second value when the sign of the difference is negative in order to determine the timing difference**)

4. Claims 7, 9-10, 13-16, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Scolan et al. (USP 7,058,729) in view of Przelomiec et al. USP (5,805, 645)

Regarding Claim 7, Le Scolan discloses device comprising:

an interface (**see Fig. 2, Wireless interface 200**) coupled to a first network (**See Fig. 2 & Col. 5 lines 25-33 i.e., "first, second network"**), and operable to receive an offset value based on a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network (**See Fig. 2 & Col. 5 lines 25-33 i.e., "first, second network"**), (**see Col. 15 lines 10-48**)

a synchronization unit coupled (**See Fig. 2, nodes B**) to the interface and operable to adjust network timing information associated with the first network by a predetermined fixed amount, (**see Col. 15 lines 10-48**)

Referring to Fig. 2, Le Scolan discloses the offset (*i.e., sign of the difference*) refers to the difference of reference time events between to buses "bA" and "bB" which are compared and communicated to cycle masters "Cma" and "Cmb" through respective interconnect nodes A,B, (**see Col. 15 lines 22-32 & Col. 10 lines 26-42**).

Le Scolan teaches a first network and second network are able to synchronize to one another by reading and calculating each of their respective clock pulses (*i.e., network timing information*) at the appearance of a reference event, (**see Col. 4 line 60 - Col. 5 lines 1-18**).

While Le Scolan teaches receiving an offset value at the interface based on a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network, Le Scolan does not expressly disclose receiving the offset value as a fixed code value and adjusting the network timing information by a predetermined fixed amount based on the code value. However the limitation would be rendered obvious in view of the teachings of Przelomiec et al. USP (5,805, 645)

Przelomiec discloses synchronizing a down-banded cellular network (**first network**) with a standard cellular network (**second network**), by monitoring timing codes transmitted. Separation between the codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks, (**see Col. 2 lines 51-64 & Col. 6 lines 26-50**)

Referring to **Col. 6 lines 59-67**, if the timing separation between DBC and cellular control channel timing codes is outside the prescribed tolerance, then corrective action may proceed on either the MSC level or base station level. The clocks in MSC's are directly adjusted to ensure synchronization in the control channel information transmitted to the base stations.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the value offset used for the adjusting network timing information associated with the first network by a predetermined fixed amount based on a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network as disclosed by Le Scolan, to be based on a fixed code value of Przelomiec who discloses determining synchronization between two networks by monitoring the separation between timing codes from both networks by more than a prescribed threshold and adjusting the clock of a network in accordance to the timing code difference and threshold, because the teaching lies in Przelomiec, that separation between the time codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks.

Regarding Claim 9, the combination of Le Scolan in view of Przelomiec, disclose a device according to claim 7, wherein the code value is a fixed code value, (**Przelomiec see Col. 2 lines 51-64 & Col. 6 lines 26-50**)

Regarding Claim 10, Le Scolan discloses a method comprising:

comparing network timing information for the first network(**See Fig. 2 & Col. 5 lines 25-33 i.e., “first, second network”**), with network timing information for the second network(**See Fig. 2 & Col. 5 lines 25-33 i.e., “first, second network”**),, (**see Col. 15 lines 10-31**)

receiving at a first network node (**see fig. 2, node B**) an offset value indicating a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network (**See Fig. 2 & Col. 5 lines 25-33 i.e., “first, second network”**), (**see Col. 15 lines 10-48**)

adjust network timing information associated with the first network by a predetermined fixed amount, (**see Col. 15 lines 10-48**)

Referring to Fig. 2, Le Scolan discloses the offset (*i.e., sign of the difference*) refers to the difference of reference time events between to buses “bA" and “bB” which are compared and communicated to cycle masters “Cma” and “Cmb" through respective interconnect nodes A,B, (**see Col. 15 lines 22-32 & Col. 10 lines 26-42**).

Le Scolan teaches a first network and second network are able to synchronize to one another by reading and calculating each of their respective clock pulses (*i.e., network timing information*) at the appearance of a reference event, (**see Col. 4 line 60 - Col. 5 lines 1-18**).

While Le Scolan teaches receiving an offset value at the interface based on a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network, Le Scolan does not expressly disclose receiving the offset value as a fixed code value and adjusting the network timing information by a predetermined fixed amount based on the code value. However the limitation would be rendered obvious in view of the teachings of Przelomiec et al. USP (5,805, 645)

Przelomiec discloses synchronizing a down-banded cellular network (**first network**) with a standard cellular network (**second network**), by monitoring timing codes

transmitted. Separation between the codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks, (**see Col. 2 lines 51-64 & Col. 6 lines 26-50**)

Referring to **Col. 6 lines 59-67**, if the timing separation between DBC and cellular control channel timing codes is outside the prescribed tolerance, then corrective action may proceed on either the MSC level or base station level. The clocks in MSC's are directly adjusted to ensure synchronization in the control channel information transmitted to the base stations.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for the value offset used for the adjusting network timing information associated with the first network by a predetermined fixed amount based on a sign of the difference between first network timing information associated with the first network and second network timing information associated with a second network as disclosed by Le Scolan, to be based on a fixed code value of Przelomiec who discloses determining synchronization between two networks by monitoring the separation between timing codes from both networks by more than a prescribed threshold and adjusting the clock of a network in accordance to the timing code difference and threshold, because the teaching lies in Przelomiec, that separation between the time

codes from the two networks by more than a prescribed threshold duration indicates an unsatisfactory state of synchronization between the two networks.

Regarding Claim 13, the combination of Le Scolan in view of Przelomiec, disclose a system according to claim 7, wherein the

the sign of the difference between the first network timing information and the second network timing information indicates that a first communication cycle associated with the first network is ahead of a second communication cycle associated with the second network, ((**Le Scolan, see Col. 12 lines 37-67 & Col. 15 lines 10-48 i.e.,** ***node CMb makes a correction to the value contained in its cycle time register in order to remain synchronized (i.e., increase or decrease timing) with the synchronization node "CMA".***

(**Kotaki, see Col. 2 lines 10-30 i.e.,** ***respective slave station repeats a time correction operation by reducing the time difference if the master station finds a gain time (ahead) from the time information or increasing the time difference if the master station finds a delay from the time information)***

Regarding Claim 14, the combination of Le Scolan in view of Przelomiec disclose a system according to claim 7, wherein the synchronization unit is arranged to measure a time between a start of a first communication cycle of the first network and a start of a

second communication cycle of the second network, (**Le Scolan, see Col. 12 lines 17-67 i.e., *interconnection nodes A, B read and update (measure) cycle start signals***)

Regarding Claim 15, the combination of Le Scolan in view of Przelomiec disclose a method according to claim 10, further comprising determining the sign of the difference between the first network timing information and the second network timing information, (**Le Scolan, see Col. 15 lines 10-48 i.e., *node CMb makes a correction to the value contained in its cycle time register in order to remain synchronized (i.e., increase or decrease timing) with the synchronization node "CMA".***

Regarding Claim 16, the combination of Le Scolan in view of Przelomiec disclose a method according to claim 10, further comprising determining the code value based on the sign of the difference between the first network timing information and the second network timing information, (**Przelomiec, see Col. 2 lines 51-64 & Col. 6 lines 26-50**)

Regarding Claim 21, the combination of Le Scolan in view of Przelomiec disclose the device of claim 7, wherein the fixed code value is a first value when the sign of the difference is positive and a second value when the sign of the difference is negative, and wherein second value is a complement of the first value, (**Przelomiec, discloses an unsatisfactory state of synchronization between both networks occurs outside**

of the threshold range however if it is within the threshold range handoff can occur within a satisfactory range of synchronization, see Col. 2 lines 51-64. It would be obvious to one of ordinary skill based on the threshold for the fixed code value determined, to have a first value when the sign of the difference is positive and a second value when the sign of the difference is negative in order to determine the timing difference)

Regarding Claim 22, the combination of Le Scolan in view of Przelomiec disclose the device of claim 10, wherein the fixed code value is a first value when the sign of the difference is positive and a second value when the sign of the difference is negative, and wherein second value is a complement of the first value, (**Przelomiec, discloses an unsatisfactory state of synchronization between both networks occurs outside of the threshold range however if it is within the threshold range handoff can occur within a satisfactory range of synchronization, see Col. 2 lines 51-64. It would be obvious to one of ordinary skill based on the threshold for the fixed code value determined, to have a first value when the sign of the difference is positive and a second value when the sign of the difference is negative in order to determine the timing difference)**

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADNAN BAIG/
Examiner, Art Unit 2461

/Jason E Mattis/
Primary Examiner, Art Unit 2461